

## **Abstract**

A coplanar waveguide line comprising

5           a substrate;

          a central electrode strip on the substrate;

10           first and second electrode strips disposed on opposite  
sides of the central electrode strip and extending  
parallel thereto;

15           first and second optical waveguides on the substrate, the  
optical waveguides being positioned between the first and  
central electrode strips and extending parallel thereto;

          the central electrode comprising at least one T-rail  
extending proximate to the first optical waveguide;

20           the first electrode comprising at least one T-rail  
extending proximate to the second optical waveguide;

          the substrate comprising an  $n^+$  electrically conducting  
layer extending between the optical waveguides;

25           wherein the coplanar waveguide line further comprises an  
electrical connection between first and second electrode  
strips.